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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,259	07/11/2003	Seung-Gu Na	45387	2412

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EXAMINER
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VIANA DI PRISCO, GERMAN

ART UNIT	PAPER NUMBER
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2609

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/27/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/617,259	Applicant(s) NA ET AL.	
	Examiner German Viana Di Prisco	Art Unit 2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on July 11, 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on July 11, 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

1. Figures 1,2,3 and 5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 2609

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
6. Claims 1 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki (United States Patent No.: 5,761,438) in view of Degermark et al. (Network Working Group, Request for Comments: 2507, February 1999).

Consider claim 1, Sasaki clearly shows and discloses a method for transmitting compressed packet data in a packet communication network, comprising the steps of: determining an operating state of the network and deciding a period for transmitting a full packet based on said operating state (abstract, column 1 lines 43-49, column 4 lines 36-43, figures 5 and 8).

However Sasaki does not specifically disclose compressing the headers.

In the same field of endeavor Degermark et al. disclose a method for IP header compression wherein uncompressed headers are transmitted during periodic transmission (F\_Max\_Period) times according to a decided full-packet transmission period, and compressed packets are transmitted during other transmission times (page 42 section 14).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to transmit uncompressed headers during periodic transmission times and uncompressed headers during other transmission times as disclosed by Degermark et al. in the method of Sasaki for the purpose of improving the efficiency of transmission in a system transmitting packet data having a compressed header.

Consider claim 13, Sasaki clearly shows and discloses an apparatus for transmitting packet data in a packet communication network, comprising: a controller for determining an operating state of the network (network's busy-state monitoring unit 8a and 8b) and deciding a period for transmitting a full packet based on said operating state; and a transmitter (network transmission/reception unit 7a and 7b) for transmitting full packets during periodic transmission times based on the decided full-packet transmission period, and transmitting compressed packets during other transmission times (abstract, column 1 lines 43-49, column 4 lines 36-43, figure 5 and 6)..

However Sasaki does not disclose compressing the headers.

In the same field of endeavor Degermark et al. disclose a method for IP header compression wherein uncompressed headers are transmitted during periodic transmission (F\_Max\_Period) times according to a decided full-packet transmission period, and compressed packets are transmitted during other transmission times (page 42 section 14).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to transmit uncompressed headers during periodic transmission times and uncompressed headers during other transmission times as disclosed by Degermark et al. in the apparatus of Sasaki for the purpose of improving the efficiency of transmission in a system transmitting packet data having a compressed header.

7. Claims 2 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki (United States Patent No.: 5,761,438) in view of Degermark et al. (Network Working Group, Request for Comments: 2507, February 1999) and further in view of Kronz (United States Patent Application Publication No.: 2003/0086373 A1).

Consider claim 2, and as applied to claim 1 above, Sasaki as modified by Degermark et al. fail to disclose a method wherein the step of deciding the transmission period comprises the steps of producing a packet retransmission ratio as a ratio of the number of retransmitted packets to the number of packets transmitted in a latest period of measurement of the operating state of the network; and deciding the full-packet transmission period based on said packet retransmission ratio.

In the same field of endeavor Kronz discloses a transmission method wherein a retransmission ratio is calculated to estimate the current congestion level in the network (page 3 paragraphs [0041]-[0044]).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the retransmission ratio to estimate the current congestion level in the network as disclosed by Kronz in the method of Sasaki as modified by Degermark et al. for the purpose of deciding the full-packet transmission period.

Consider claim 14, and as applied to claim 13 above, Sasaki as modified by Degermark et al. fail to disclose an apparatus wherein the controller produces a packet retransmission ratio as a ratio of the number of retransmitted packets to the number of packets transmitted in a latest period of measurement of the operating state of the network; and deciding the full-packet transmission period based on said packet retransmission ratio.

In the same field of endeavor Kronz discloses a transmission method wherein a retransmission ratio is calculated to estimate the current congestion level in the network (page 3 paragraphs [0041]-[0044]).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the retransmission ratio to estimate the current congestion level in the network as disclosed by Kronz in the apparatus of Sasaki as

Art Unit: 2609

modified by Degermark et al. for the purpose of deciding the full-packet transmission period.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki (United States Patent No.: 5,761,438) in view of Degermark et al. (Network Working Group, Request for Comments: 2507, February 1999) and Kronz (United States Patent Application Publication No.: 2003/0086373 A1), and further in view of Schulzrinne et al. (Network Working Group, Request for Comments: 1889, January 1996).

Regarding claim 3, and as applied to claim 2 above, Sasaki as modified by Degermark et al. and Kronz fail to disclose that a period for determining the operating state of the network is the same as a period for transmitting state information according to a real-time transmission protocol (RTP).

In the same field of endeavor, Schulzrinne et al. disclose a real-time transmission protocol (RTP), wherein control packets with state information are transmitted periodically at intervals of no less than 5 seconds apart (pages 15-20).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use the same intervals used by the RTP protocol to transmit state information as disclosed by Schulzrinne et al in the method of Sasaki as modified by Degermark et al. and Kronz in order to determine the operating state of the network.



9. Claims 4-6 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki (United States Patent No.: 5,761,438) in view of Degermark et al. (Network Working Group, Request for Comments: 2507, February 1999) and Kronz (United States Patent Application Publication No.: 2003/0086373 A1), and further in view of Traversat et al. (United States Patent Application Publication No.: 2002/0152299 A1).

Consider claim 4, and as applied to claim 2 above, Sasaki as modified by Degermark et al. and Kronz disclose a header compression method wherein full header packets (non compressed headers) are transmitted at periodic intervals ( $F\_Max\_Period$ ) (Degermark: page 11).

However Sasaki as modified by Degermark et al. and Kronz fail to disclose that the full-packet transmission period is decided as a first value if the packet retransmission ratio is at or above a predetermined high-level threshold; the full-packet transmission period is decided as a second value being greater than the first value if the packet retransmission ratio is at or below a predetermined low-level threshold; and the full-packet transmission period is decided as a third value between the first value and the second value if the packet retransmission ratio is between the low-level threshold and the high-level threshold.

In the same field of endeavor, Traversat et al. disclose a method for establishing reliable connections between peers in a peer-to-peer networking environment wherein the size of the transmission window may be dynamically adjusted based upon evaluation of the retransmission ratio (abstract, page 17 paragraph [0185]).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made to use the retransmission ratio to adjust the transmission window as disclosed by Traversat et al. in the method of Sasaki as modified by Degermark et al. and Kronz in order to decide the full-packet transmission period.

Consider claims 5 and 6, and as applied to claim 4 above Sasaki as modified by Degermark et al., Kronz, and Traversat et al. disclose a header compression method wherein full header packets (non compressed headers) are transmitted at periodic intervals (F\_Max\_Period) (Degermark: page 11) based upon the retransmission ratio (Traversat et al.: abstract, page 17 paragraph [0185]).

However Sasaki as modified by Degermark et al., Kronz, and Traversat et al. do not expressly disclose deciding the full-packet transmission period to be "1" or twice a third value.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to establish full-packet transmission periods values based on the quality and reliability of the network communication channel. Applicant has not disclosed that using a period of "1" or twice a third value provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with other values of the full-packet transmission period because said values are based upon the quality and reliability of the network communication channel.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Sasaki as modified by Degermark et al., Kronz, and Traversat et al. to obtain the invention as specified in claims 5 and 6.

Consider claim 15, and as applied to claim 14 above, Sasaki as modified by Degermark et al. and Kronz disclose an apparatus for header compression wherein full header packets (non compressed headers) are transmitted at periodic intervals (F\_Max\_Period) (Degermark: page 11).

However Sasaki as modified by Degermark et al. and Kronz fail to disclose that the full-packet transmission period is decided as a first value if the packet retransmission ratio is at or above a predetermined high-level threshold; the full-packet transmission period is decided as a second value being greater than the first value if the packet retransmission ratio is at or below a predetermined low-level threshold; and the full-packet transmission period is decided as a third value between the first value and the second value if the packet retransmission ratio is between the low-level threshold and the high-level threshold.

In the same field of endeavor, Traversat et al. disclose a method for establishing reliable connections between peers in a peer-to-peer networking environment wherein the size of the transmission window may be dynamically adjusted based upon evaluation of the retransmission ratio (abstract, page 17 paragraph [0185]).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made to use the retransmission ratio to adjust the

Art Unit: 2609

transmission window as disclosed by Traversat et al. in the apparatus of Sasaki as modified by Degermark et al. and Kronz in order to decide the full-packet transmission period.

Consider claims 16 and 17, and as applied to claim 15 above Sasaki as modified by Degermark et al., Kronz, and Traversat et al. disclose a header compression apparatus wherein full header packets (non compressed headers) are transmitted at periodic intervals (F\_Max\_Period) (Degermark: page 11) based upon the retransmission ratio (Traversat et al.: abstract, page 17 paragraph [0185]).

However Sasaki as modified by Degermark et al., Kronz, and Traversat et al. do not expressly disclose deciding the full-packet transmission period to be "1" or twice a third value.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to establish full-packet transmission periods values based on the quality and reliability of the network communication channel. Applicant has not disclosed that using a period of "1" or twice a third value provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with other values of the full-packet transmission period because said values are based upon the quality and reliability of the network communication channel.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Sasaki as modified by Degermark et al., Kronz, and Traversat et al. to obtain the invention as specified in claims 16 and 17.

10. Claims 7,8,18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki (United States Patent No.: 5,761,438) in view of Degermark et al. (Network Working Group, Request for Comments: 2507, February 1999, and further in view of Loguinov (United States Patent Application Publication No.: 2002/0124096 A1).

Consider claim 7, as applied to claim 1 above, and claim 8, as applied to claim 7, Sasaki as modified by Degermark et al. fail to disclose a method wherein the step of deciding the transmission period comprises the steps of: producing a packet retransmission ratio as a ratio of the number of retransmitted packets to the number of packets transmitted in a latest period of measurement of the operating state of the network; accumulating the produced packet retransmission ratio and other packet retransmission ratios produced during previous measurement times and producing an average packet retransmission ratio; and deciding the full-packet transmission period according to the produced average packet retransmission ratio.

Claims 7 and 8 essentially disclose the operation of an exponentially weighted moving average filter. In the same field of endeavor, Loguinov et al. disclose a method for estimating retransmission timeout based upon an exponentially weighted moving average filter of past round trip times (page 1 paragraphs [0008]-[0010]).

Therefore it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to use an exponentially weighted moving average filter as disclosed by Loguinov et al. in the method of Sasaki as modified by Degermark et al. in order to produce an average packet retransmission ratio used to decide the full-packet transmission period.

Consider claim 18, as applied to claim 13 above, and claim 19, as applied to claim 18, Sasaki as modified by Degermark et al. fail to disclose an apparatus wherein the controller produces a packet retransmission ratio as a ratio of the number of retransmitted packets to the number of packets transmitted in a latest period of measurement of the operating state of the network; accumulates the produced packet retransmission ratio and other packet retransmission ratios produced during previous measurement times and produces an average packet retransmission ratio; and decides the full-packet transmission period according to the produced average packet retransmission ratio.

Claims 18 and 19 essentially disclose the operation of an exponentially weighted moving average filter. In the same field of endeavor, Loguinov et al. disclose a method for estimating retransmission timeout based upon an exponentially weighted moving average filter of past round trip times (page 1 paragraphs [0008]-[0010]).

Therefore it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to use an exponentially weighted moving average filter as disclosed by Loguinov et al. in the apparatus of Sasaki as modified by Degermark et

Art Unit: 2609

al. in order to produce an average packet retransmission ratio used to decide the full-packet transmission period.

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki (United States Patent No.: 5,761,438) in view of Degermark et al. (Network Working Group, Request for Comments: 2507, February 1999) and Loguinov (United States Patent Application Publication No.: 2002/0124096 A1) above, and further in view of Schulzrinne et al. (Network Working Group, Request for Comments: 1889, January 1996).

Consider claim 9, and as applied to claim 7 above, Sasaki as modified by Degermark et al. and Loguinov et al. fail to disclose that a period for determining the operating state of the network is the same as a period for transmitting state information according to a real-time transmission protocol (RTP).

In the same field of endeavor, Schulzrinne et al. disclose a real-time transmission protocol (RTP), wherein control packets with state information are transmitted periodically at intervals of no less than 5 seconds apart (pages 15-20).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use the same intervals used by the RTP protocol to transmit state information as disclosed by Schulzrinne et al in the method of Sasaki as modified by Degermark et al. and Loguinov et al. in order to determine the operating state of the network.

Art Unit: 2609

12. Claims 10-12 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki (United States Patent No.: 5,761,438) in view of Degermark et al. (Network Working Group, Request for Comments: 2507, February 1999 and Loguinov (United States Patent Application Publication No.: 2002/0124096 A1). and further in view of Traversat (United States Patent Application Publication No.: 2002/0152299 A1).

Consider claim 10, and as applied to claim 7 above, Sasaki as modified by Degermark et al. and Loguinov et al. disclose a header compression method wherein full header packets (non compressed headers) are transmitted at periodic intervals (F\_Max\_Period) (Degermark: page 11).

However Sasaki as modified by Degermark et al. and Loguinov et al. fail to disclose that the full-packet transmission period is decided as a first value if the packet retransmission ratio is at or above a predetermined high-level threshold; the full-packet transmission period is decided as a second value being greater than the first value if the packet retransmission ratio is at or below a predetermined low-level threshold; and the full-packet transmission period is decided as a third value between the first value and the second value if the packet retransmission ratio is between the low-level threshold and the high-level threshold.

In the same field of endeavor, Traversat et al. disclose a method for establishing reliable connections between peers in a peer-to-peer networking environment wherein



Art Unit: 2609

the size of the transmission window may be dynamically adjusted based upon evaluation of the retransmission ratio (abstract, page 17 paragraph [0185]).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made to use the retransmission ratio to adjust the transmission window as disclosed by Traversat et al. in the method of Sasaki as modified by Degermark et al. and Loguinov et al. in order to decide the full-packet transmission period

Consider claims 11 and 12, and as applied to claim 10 above Sasaki as modified by Degermark et al., Loguinov et al., and Traversat et al. disclose a header compression method wherein full header packets (non compressed headers) are transmitted at periodic intervals (F\_Max\_Period) (Degermark: page 11) based upon the retransmission ratio (Traversat et al.: abstract, page 17 paragraph [0185]).

However Sasaki as modified by Degermark et al., Loguinov et al., and Traversat et al. do not expressly disclose deciding the full-packet transmission period to be "1" or twice a third value.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to establish full-packet transmission periods values based on the quality and reliability of the network communication channel. Applicant has not disclosed that using a period of "1" or twice a third value provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with

Art Unit: 2609

other values of the full-packet transmission period because said values are based upon the quality and reliability of the network communication channel.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Sasaki as modified by Degermark et al., Loguinov et al., and Traversat et al. to obtain the invention as specified in claims 11 and 12.

Consider claim 20, and as applied to claim 18 above, Sasaki as modified by Degermark et al. and Loguinov et al. disclose a header compression apparatus wherein full header packets (non compressed headers) are transmitted at periodic intervals (F\_Max\_Period) (Degermark: page 11).

However Sasaki as modified by Degermark et al. and Loguinov et al. fail to disclose that the full-packet transmission period is decided as a first value if the packet retransmission ratio is at or above a predetermined high-level threshold; the full-packet transmission period is decided as a second value being greater than the first value if the packet retransmission ratio is at or below a predetermined low-level threshold; and the full-packet transmission period is decided as a third value between the first value and the second value if the packet retransmission ratio is between the low-level threshold and the high-level threshold.

In the same field of endeavor, Traversat et al. disclose a method for establishing reliable connections between peers in a peer-to-peer networking environment wherein the size of the transmission window may be dynamically adjusted based upon evaluation of the retransmission ratio (abstract, page 17 paragraph [0185]).

Art Unit: 2609

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made to use the retransmission ratio to adjust the transmission window as disclosed by Traversat et al. in the apparatus of Sasaki as modified by Degermark et al. and Loguinov et al. in order to decide the full-packet transmission period.

Consider claims 21 and 22, and as applied to claim 20 above Sasaki as modified by Degermark et al., Loguinov et al., and Traversat et al. disclose a header compression apparatus wherein full header packets (non compressed headers) are transmitted at periodic intervals (F\_Max\_Period) (Degermark: page 11) based upon the retransmission ratio (Traversat et al.: abstract, page 17 paragraph [0185]).

However Sasaki as modified by Degermark et al., Loguinov et al., and Traversat et al. do not expressly disclose deciding the full-packet transmission period to be "1" or twice a third value.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to establish full-packet transmission periods values based on the quality and reliability of the network communication channel. Applicant has not disclosed that using a period of "1" or twice a third value provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with other values of the full-packet transmission period because said values are based upon the quality and reliability of the network communication channel.

Art Unit: 2609

Therefore, it would have been obvious to one of ordinary skill in the art to modify Sasaki as modified by Degermark et al., Loguinov et al., and Traversat et al. to obtain the invention as specified in claims 21 and 22.

### **Conclusion**

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Miyazaki et al. (United States Patent No.: 6,914,903 B1) teach a data transmission apparatus and method for transmitting an uncompressed packet followed by compressed packet. Yoshimura et al. (United States Patent Publication No.: 2001/0048680 A1) teach a method and apparatus for packet transmission with header compression. Jacobson (Network Working Group Request for Comments 1144, February 1990) teaches a method for compressing TCP/IP headers.

14. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

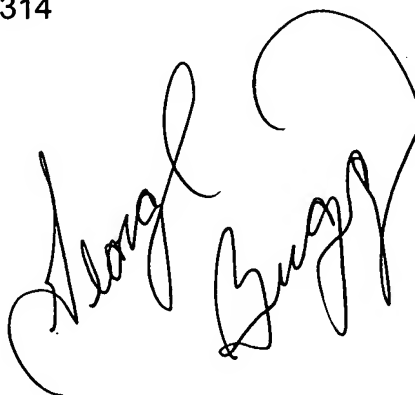
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**Hand-delivered responses** should be brought to

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*German Viana Di Prisco*  
G.V.D.P./gvdp

February 16, 2006

A handwritten signature in black ink, appearing to read 'German Viana Di Prisco', with a large, stylized flourish at the end.